

**Amendments to the Claims:**

Please amend claims 1, 2 and 13, cancel claims 4-12 and 15-50 and add new claims 51-62. This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (currently amended) A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide having at least 95% identity to SEQ ID NO:4, wherein the polypeptide induces an immune response in a susceptible organism that blocks the transmission of malaria and hybridizes under stringent conditions to SEQ ID NO:3.

2. (currently amended) A The composition comprising an of claim 1, wherein the isolated nucleic acid having has a sequence as shown in SEQ ID NO:3.

3. (original) A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide having an amino acid sequence as shown in SEQ ID NO:4.

4-12 (canceled)

13. (currently amended) A method of inducing an immune response against Pvs25 on the surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible organism a pharmaceutical composition comprising a nucleic acid encoding a Pvs25 polypeptide in an amount sufficient to induce a transmission blocking immune response, wherein the nucleic acid encodes a Pvs25 polypeptide having at least 95% identity to SEQ ID NO:4.

14. (original) The method of claim 16, wherein the susceptible organism is a human.

15-50 (canceled)

1               51. (new) A composition comprising an isolated nucleic acid molecule which  
2 encodes a Pvs25 polypeptide, wherein the polypeptide induces an immune response in a  
3 susceptible organism that blocks the transmission of malaria, and wherein the nucleic acid  
4 molecule has at least 95% identity to SEQ ID NO:3.

1               52. (new) A composition of comprising an isolated Pvs25 polypeptide having  
2 at least 95% identity to SEQ ID NO:4, wherein the polypeptide induces an immune response in a  
3 susceptible organism that blocks the transmission of malaria.

1               53. (new) The composition of claim 52, wherein the Pvs25 polypeptide has  
2 an amino acid sequence as shown in SEQ ID NO:4

1               54. (new) A pharmaceutical composition comprising a pharmaceutically  
2 acceptable carrier and a Pvs25 polypeptide of claim 52 in an amount sufficient to induce an  
3 immune response in a susceptible organism.

1               55. (new) The composition of claim 54, wherein the Pvs25 polypeptide  
2 comprises an amino acid sequence encoded by the nucleic acid of claim 1.

1               56. (new) The composition of claim 54, wherein the Pvs25 polypeptide  
2 comprises an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO:3 or an  
3 amino acid having the sequence as set forth in SEQ ID NO:4.

1               57. (new) The method of claim 13, wherein the nucleic acid encoding the  
2 Pvs25 polypeptide is administered intramuscularly, intradermally, subcutaneously, or  
3 intranasally.

1               58. (new) A method of inducing an immune response against Pvs25 on the  
2 surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible  
3 organism a pharmaceutical composition comprising a Pvs25 polypeptide of claim 52 in an  
4 amount sufficient to induce a transmission blocking immune response.

1               59. (new) The method of claim 58, wherein the Pvs25 polypeptide in the  
2 pharmaceutical composition is recombinantly produced.

1               60. (new) The method of claim 58, wherein the susceptible organism is a  
2 human.

1               61. (new) The method of claim 58, wherein the Pvs25 polypeptide in the  
2 pharmaceutical composition is on the surface of a recombinant virus.

1               62. (new) The method of claim 58, wherein the Pvs25 polypeptide is  
2 administered intramuscularly, intradermally, subcutaneously, or intranasally.